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(54) **Chimeric antibodies directed against human carcinoembryonic antigen.**

(57) The present invention discloses novel chimeric monoclonal antibodies, directed against human carcinoembryonic antigen, having antigen-specific variable regions of defined amino acid sequences. DNA constructs for the light and heavy chain variable regions comprising the novel antibodies of the invention are provided. Eukaryotic host cells capable of expression of the chimeric antibodies and comprising the novel chimeric antibody-encoding DNA constructs are also provided.

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European Patent Office

EUROPEAN SEARCH REPORT

Application Number EP 89 30 2312

DOCUMENTS CONSIDERED TO BE RELEVANT

	Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
1	A	EP-A-0 125 023 (GENETECH, INC. et al.) * Example E4; figures 11,12 *	1-26	C 12 N 15/00 C 12 N 5/00 A 61 K 39/395
1	A	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA, vol. 81, June 1984, pages 3273-3277; S. CABILLY et al.: "Generation of antibody activity from immunoglobulin polypeptide chains produced in Escherichia coli" * Table 1; page 3276, paragraph 2 *	1-26	
1	X,P	THE JOURNAL OF IMMUNOLOGY, vol. 141, no. 11, 1st December 1988, pages 4053-4060, The American Association of Immunologists, US; C.B. BEIDLER et al.: "Cloning and high level expression of a chimeric antibody with specificity for human carcinoembryonic antigen" * Whole article< *	1-26	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

C 12 N

~~The present search report has been drawn up for all claims~~

Place of search	Date of completion of the search	Examiner
THE HAGUE	28-11-1990	CUPIDO M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.

☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

x LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

See sheet -B-

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: 1-26

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-26: DNA constructs encoding an antibody specific for human carcinoembryonic antigen, cells containing these constructs and antibodies produced by these cells.

2. Claims 27-29: A method for increasing the expression of chimeric antibodies intransfected cells, enhancerless vectors to be used in this method.

3. Claims 30-32: The CEM Kappa promoter of plasmid pGEMK.